

green pine needle can be seen. From the air it would look like a very sick patch of pines in a sea of green. It has been estimated that the roost contains some 35 million butterflies; I make that about a thousand per square metre. It is quite mind-boggling!

As the day heats up and as the sun begins to penetrate the main roosts, the trees become increasingly orange, as many individuals open their wings to bask, eventually to fly off. The whirring of millions of wings is a constant background noise. When there is no sun the Monarchs cannot fly. Their roosts are chosen in an area where the ambient temperature ranges from 2 to 12 degrees centigrade; their dense clustering is a defence against those occasional days when there is frost, as well as to deter predators.

As usual, no defence is perfect. The forest floor is littered with Monarch bodies and wings. Two species of birds and a mouse have managed to adapt to the powerful alkaloids which deter most predators. However, the best estimate is that 90 percent of these winter visitors survive, and hail storms account for more of the mortality than predators do.

There are three main roosts, each with 30 - 40 million Monarchs, and nine or ten much smaller roosts. They are all under identical ecological conditions in an area of not much more than a hundred square kilometres, yet all Monarchs from the eastern USA and Canada reach these roosts.

During the walk down to the car in the late afternoon, the Monarchs were making their way back up. Stop for a moment in a ray of sunshine, and four or five will settle on your shirt to drink up that little bit of extra heat needed to get them safely back to their roosts.

The night is spent in a lovely little hotel (\$12 for the night, and \$3 for a three-course meal). Montezuma was not out to get me. The traffic police waved politely. I was ready to face the 48-hour journey back to Botswana, rather improbably touching Montreal, Madrid, London and Lusaka on the way. I need not have worried about the Monarchs. No matter how well you know them intellectually, no matter how many films you have seen, once you stand there, you stand in awe.—T.B. LARSEN, 358 Coldharbour Lane, London SW9 8PL.

### ***Thera juniperata* Thunberg in eastern Ireland.**

On 27.x.1986, one of us (JKE) took an unfamiliar looking geometrid at Newbridge, Co. Kildare (Irish grid ref. N803142). Just over two years later, on the evening of 5.xi.1988, KGMB took a similar specimen at Stepside, Co. Dublin (IGR O192242). Comparison with the illustrations in Skinner B. (1984. *Colour identification guide to moths of the British Isles*. Viking, Harmondsworth) indicates that both specimens are examples of *Thera juniperata juniperata* Thunberg. In Ireland *T. juniperata* has up to now only been reported from the Burren, Co. Clare and Connemara, Co. Galway (Baynes, E.S.A., 1964. *A revised catalogue of the Irish Macrolepidoptera* (Butterflies and Moths). E.W. Classey Ltd., Hampton, Middlesex), but the form found in those areas is considered to be a distinct

Irish race, intermediate in size between the nominate form and *T. juniperata scotica* White, and with a paler colour than the former (Skinner, *loc. cit.*). The Newbridge and Stepside specimens have a greyer ground colour and broader wings than two examples in the possession of KGMB, labelled “[bred] Burren, Co. Clare Eire; 30.ix.1964; E.S.A. Baynes”. It is possible that some of the difference in ground colour is due to ageing of the Burren specimens. The Burren specimens, both males, have wingspans of about 23mm and 25mm respectively, while the Newbridge specimen, also a male, has a wingspan of 25mm, and that of the Stepside specimen, a female, is 23mm.

The recent discovery of a form of *Thera juniperata* in eastern Ireland more closely resembling the nominate form, and which is here tentatively ascribed to it, suggests that the species has been introduced into the area along with the foodplant, either from Britain, or from continental Europe. The Stepside specimen was caught in a suburban locality in which several small juniper bushes were noticed in the immediate vicinity. The Newbridge specimen was found in a similar locality, in an almost ten-year-old housing estate, in which juniper bushes are likely to have been planted at least six years ago.— K.G.M. BOND, Zoology Department, University College, Cork, Eire. J.K. EARLY, Geology Department, University College, Belfield, Dublin 4, Eire.

### Hentomological spelling.

I can readily sympathise with Mr P. Roper (*antea*: 97) in his bewilderment over the various perversions, oddities, and apparent personal quirks in the spelling of names based on those of places. In a priority-based system these doubtless have to be preserved, and it is probably beyond anyone’s reason to explain them all.

However, I can, perhaps, suggest a reason for the odd spelling *rhoumensis* for the race of the Small Heath on Rum. I would guess that the original form of the island’s name was Innis na Dhruim, “island of the ridge”, i.e. a ridge or “backbone” of mountains. (The radical form *druim* is the origin of the element Drum- in Scottish and Irish place-names.) Now this *dhruim* (not to enter too deeply into Gaelic phonology) would sound, roughly, something like “rhum” or “rhoom” — certainly not like English “rum”. Hence *rhoumensis* could be held to be a more phonetic spelling than *rumensis*, while the latter would have been preferable on grounds of simplicity. As to the Romans, I doubt if they knew the island; but if so, I expect they would have called it quite simply *Insula Ruma*. (The diphthong “ou” became disused early in the history of Latin, old “ou”s becoming “u”s.)

The case of *Daboecia* is quite different: it was evidently a blunder on someone’s part, possibly a printer’s but more likely, I think, a *lapsus calami* by the author or a copyist. He must have meant to write *Dabeocia*, but the termination *-oecia*, so common in scientific names (Greek *oikos*